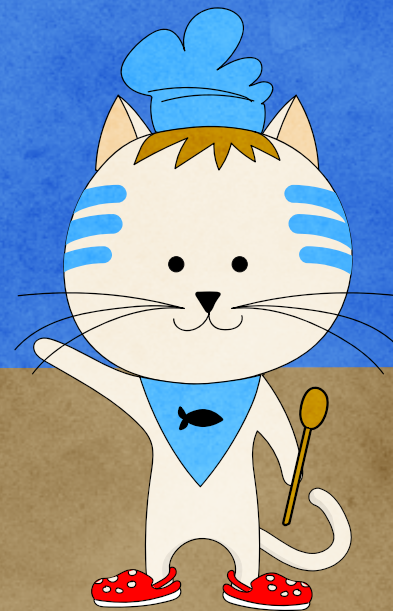


# Kube + Flo's PLACE



Arrikto

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Art by Konstantinos Palaiologos



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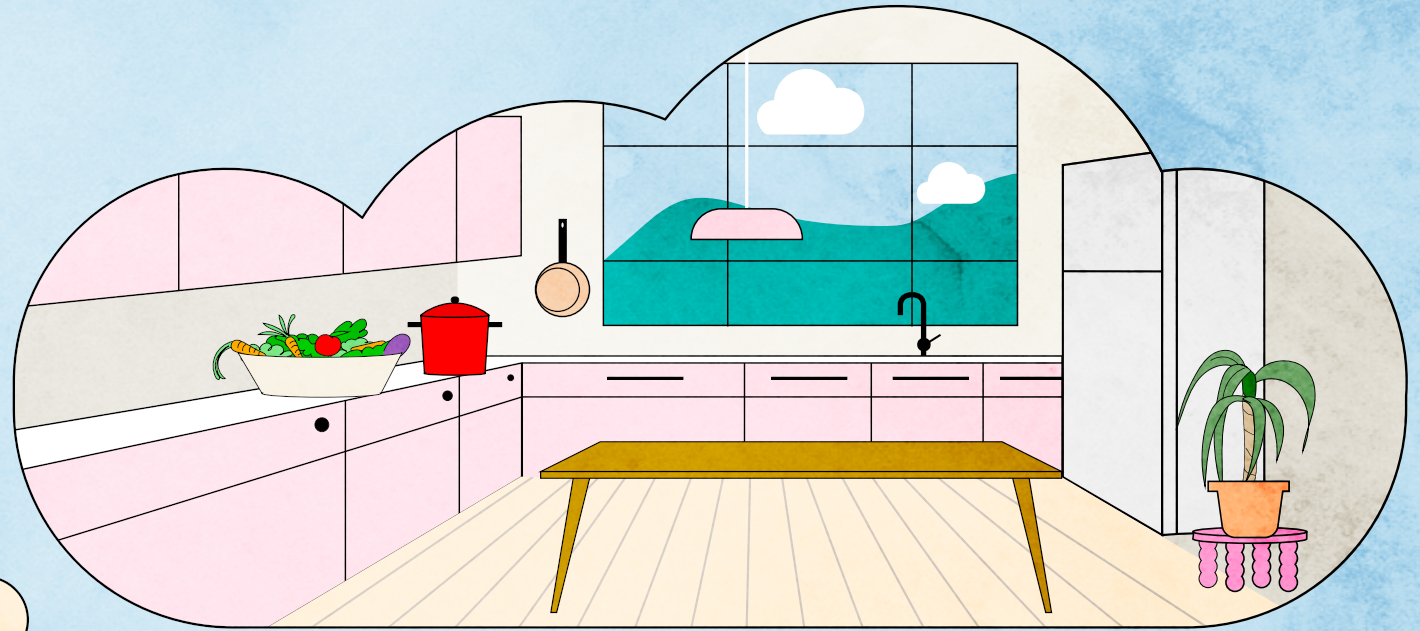
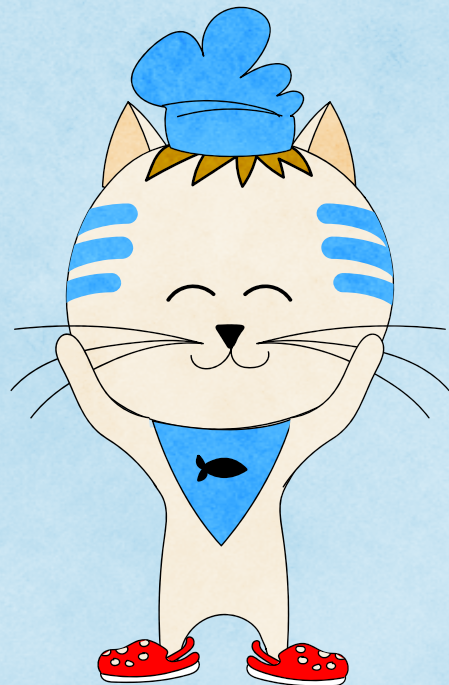
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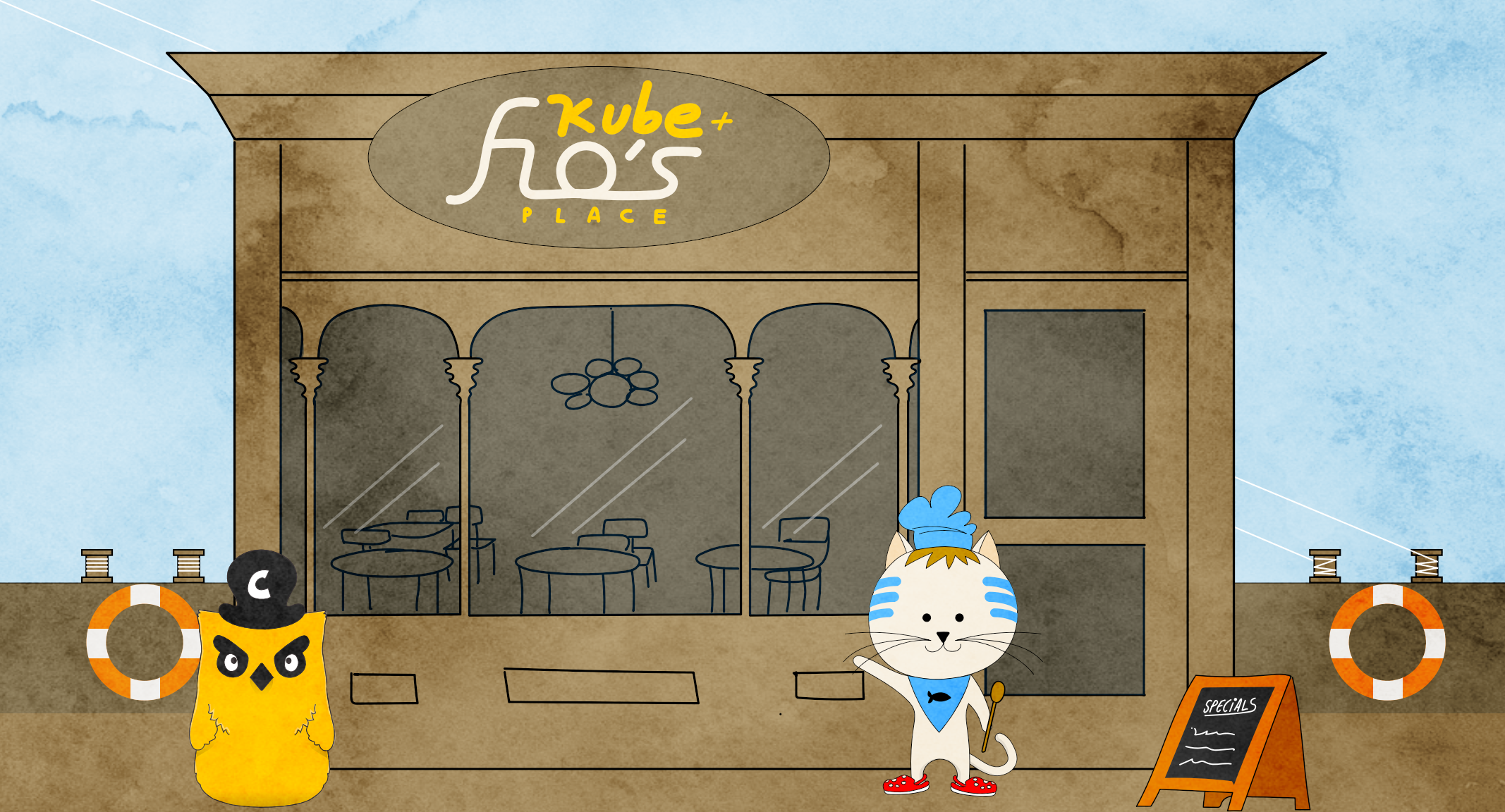


There once was a kitten named Flo. She loved to cook for her friends. Creating delicious new food for her friends to try made her so happy. Her friends loved her so much that she worked up the courage to open a restaurant.

The first thing she had to do was find a place for her restaurant. She thought about making the restaurant at her own house since she already knew where everything was, but was worried that if her restaurant got too popular, she would have to move.



She thought about building her restaurant in the clouds, but she worried “building in the clouds sometimes means you can’t arrange your kitchen the way you want it.”



Finally, her friend Captain Kube recommended that she build her restaurant on his ship. Since many of her friends already lived there, other friends could boat up to the side. On his ship she would be able to arrange her kitchen however she liked (just like home). If it gets popular she could also expand it easily.

Captain Kube asked Flo, "So what shall we call this restaurant of yours?". And Flo thought for a moment, "How about Kube and Flo's Place?" "Love it." replied the captain, and so Captain Kube gave Flo a namespace to set her restaurant up in, and hung a sign out front.

# Where to Host?

## Pros

### Cloud

- Tools available as managed services
- Ideal for companies expecting rapid growth and variable loads

### On-Prem

- Familiar for many IT teams
- Ideal for predictable “fixed size” loads

### Kubernetes

- Abstraction layer that can be deployed on cloud OR on-prem. Allows near seamless shifting
- DevOps experience of running containers at scale

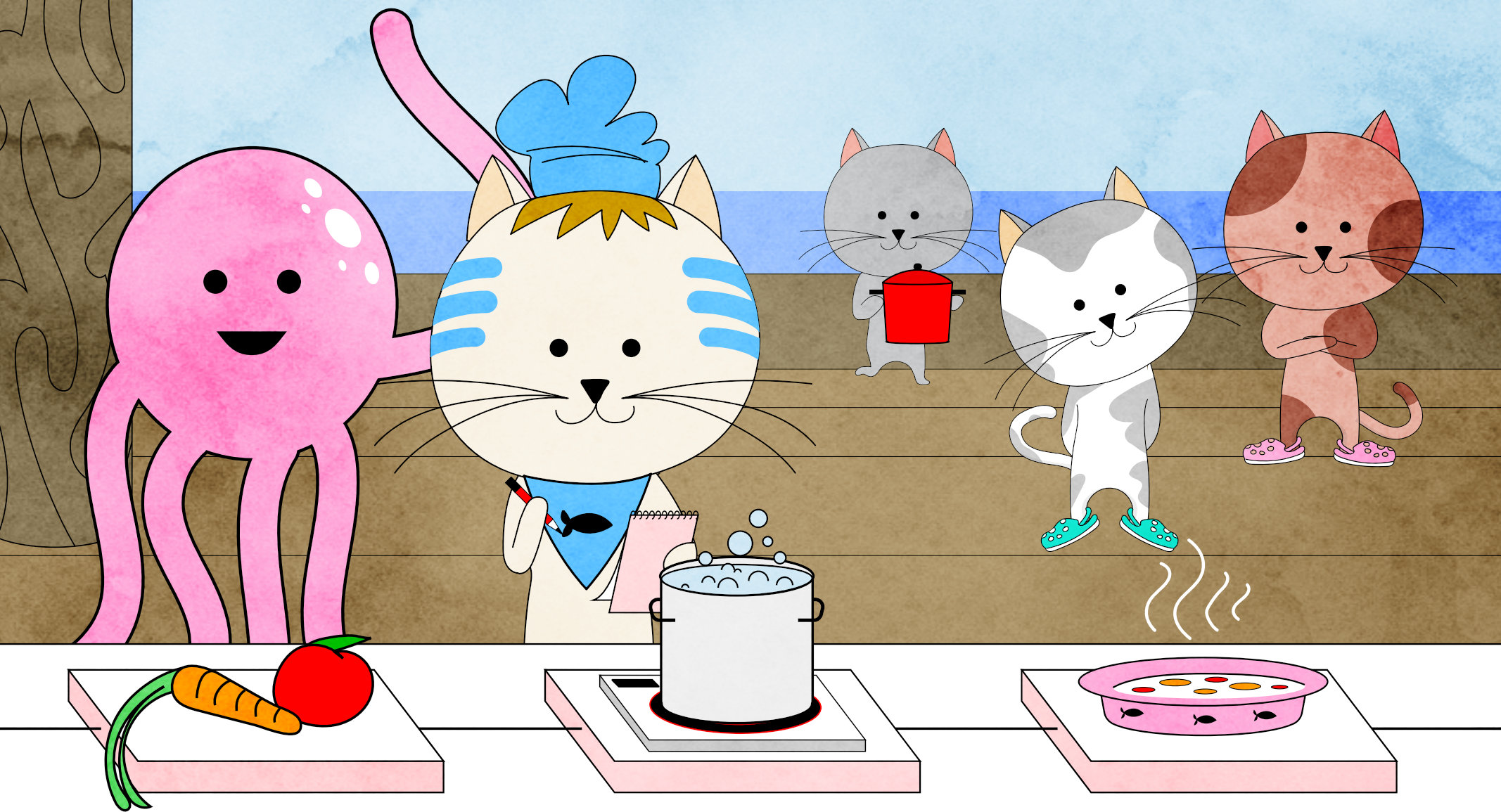
## Cons

### Cloud

- Can be expensive
- Can be less secure

### On-Prem

- Larger IT costs
- Less Flexibility



The next thing Flo had to do was hire some more kittens to work in her restaurant. Flo was such a famous chef, she had no problem finding kittens who wanted to work for her. But all of the recipes were in her head- no one else knew how to make them.

She tried writing one recipe, but when two different kittens made it- it tasted different! Just then, her friend Argie stopped by. Argie was an argonaut and

knew all about recipes so she told him her problem, "Oh Argie- when different kittens make my recipes, they come out tasting different, what should I do?"

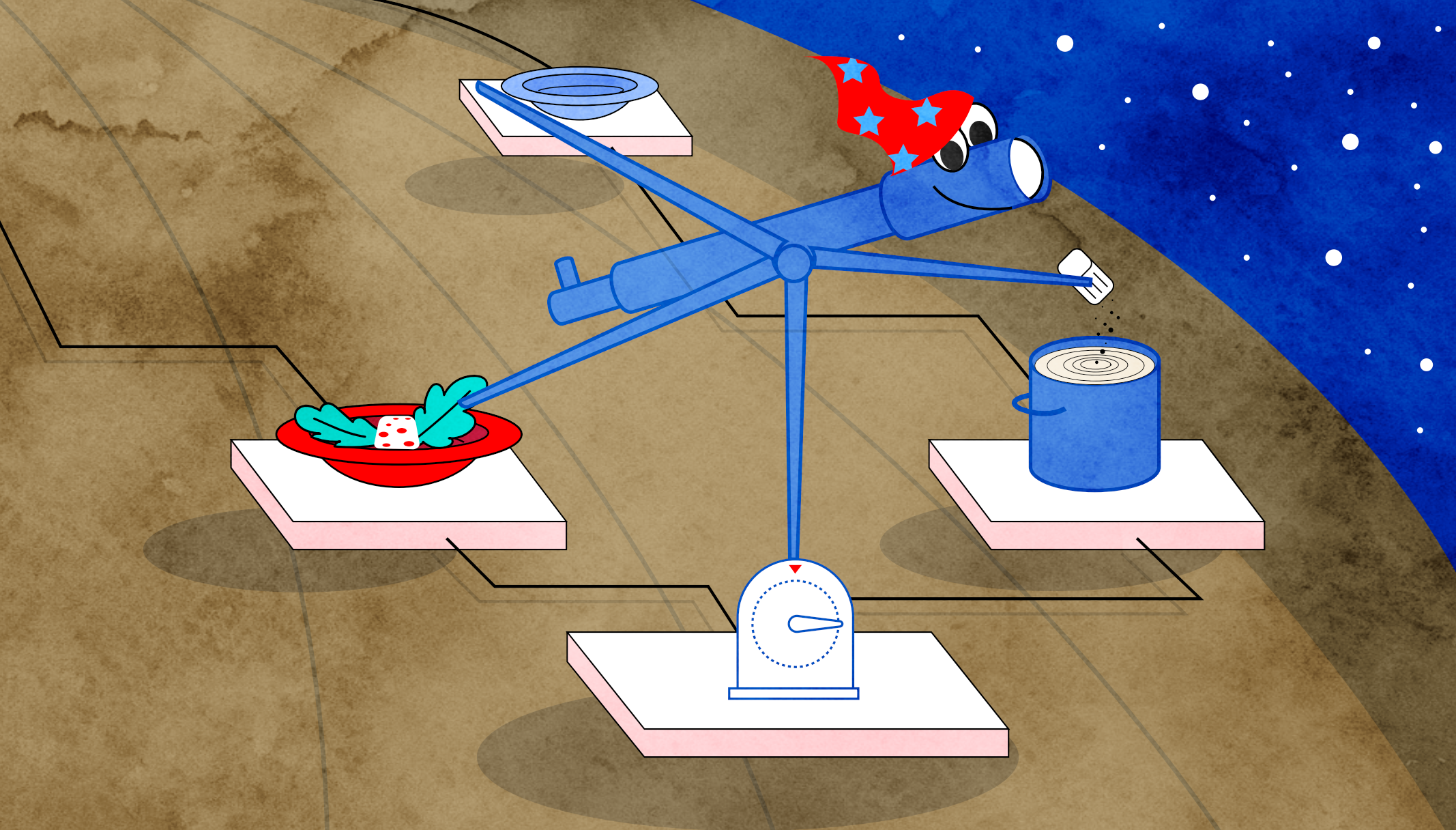
Argie of course knew just what to do, "Food is more than the product of a recipe: you need to think of the entire process from making sure the ingredients are high quality, to checking the final dish."



So she took his advice and defined not just recipes for her favorite dishes but also entire processes for cooking them.

Now it didn't matter who made the dish, they always tasted similar. "But," Flo protested, "Now everything tastes the same and bland, like a fast food chain, which is not what I wanted at all".

She looked out of a telescope to the stars and sighed. But this was no ordinary telescope- this telescope was magic! The telescope said, "My name is Katib, and I grant wishes!", and then Flo's wish for recipes that tasted the same no matter who made them AND to taste just as delicious as the ones she made was granted!

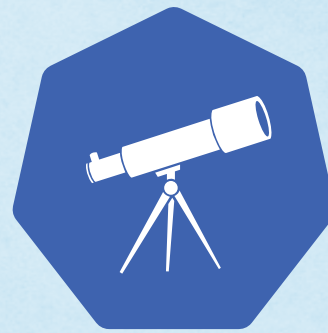


Katib started flying around making little tweaks here and there, adjusting how much salt to put in by a pinch, baking it 5 minutes longer, serving on a red plate instead of a blue plate.

Now things were starting to come together! She had multiple kittens- creating dishes on Captain Kube's ship- so she could serve anywhere from one customer

a day to a large party of millions of customers. But she still had one concern- what if people got bored of her food?

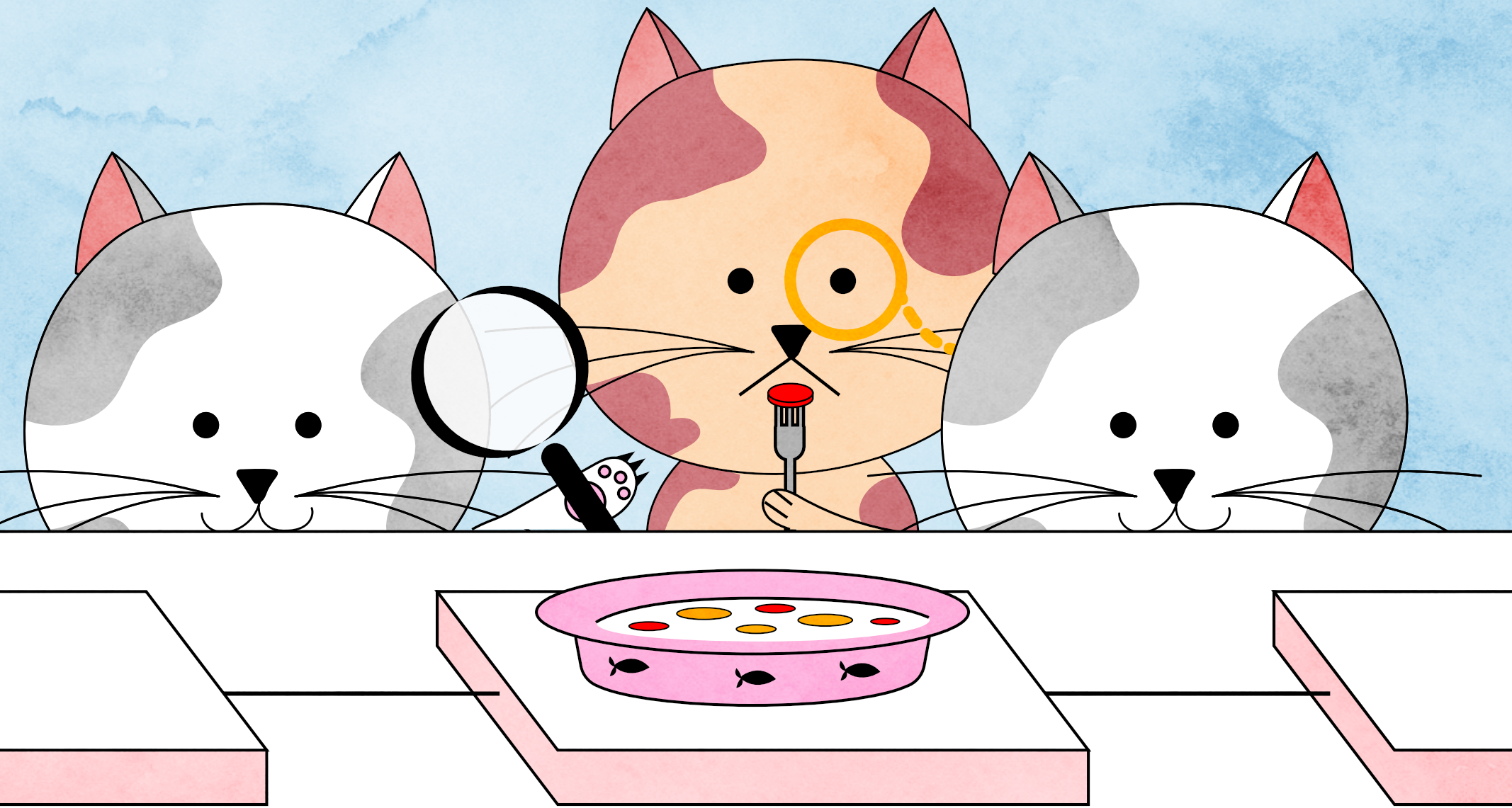
Candidly- even she was starting to get bored with some of her dishes from all of the taste testing she was doing- so then surely her best customers would too!



Katib

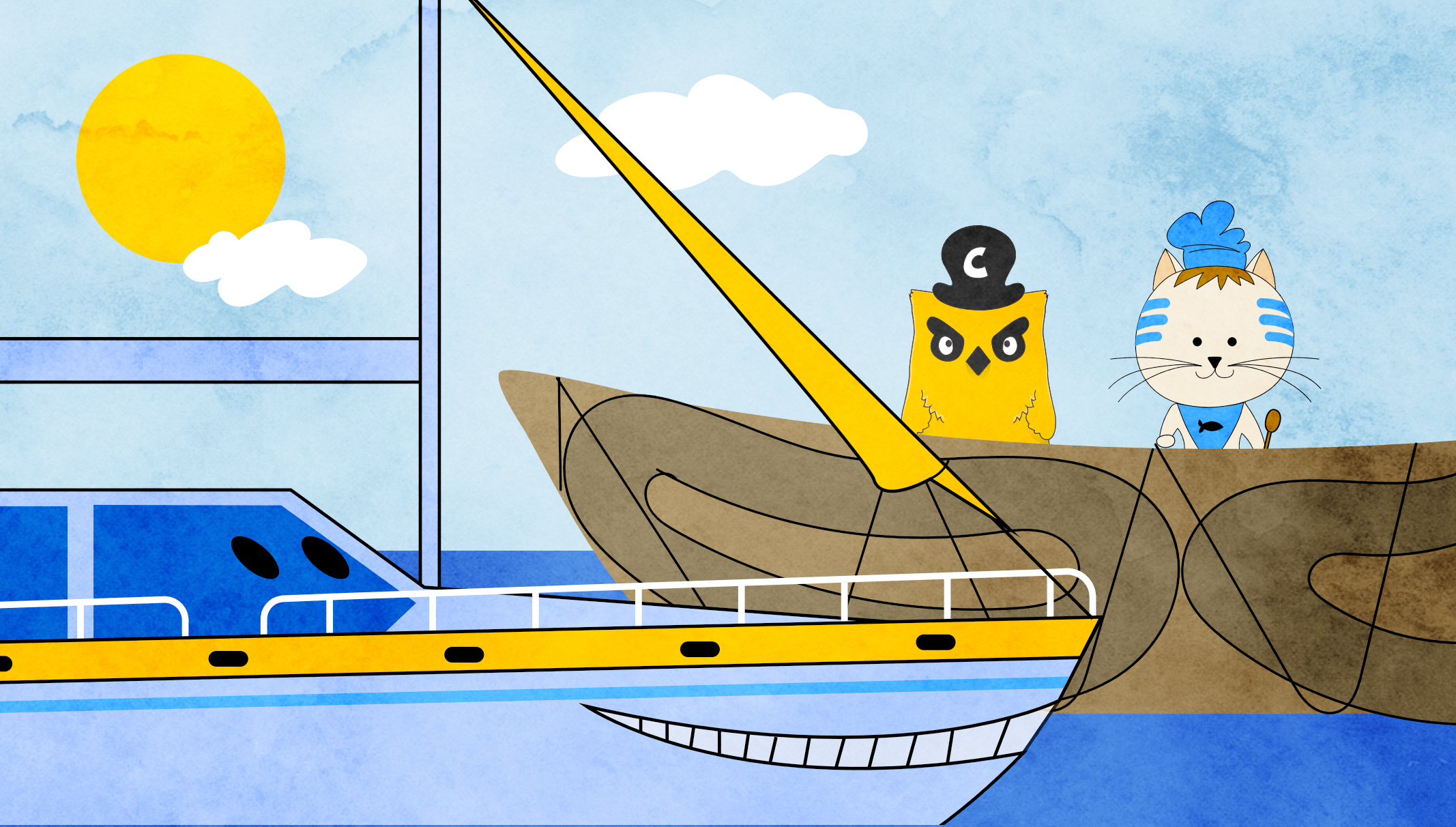
## What is Katib?

- A Kubernetes-native project for automated machine learning (AutoML)
- Project Agnostic (will work with Tensorflow, PyTorch, sklearn, etc.)
- Provides hyperparameter tuning. (It optimizes hyperparameters to maximize and objective)
- Allows users to run experiments with different hyperparameters too



“Don’t worry about that!” exclaimed Argie. “Just add a focus group in your pipeline- they’ll meet every so often and if they decide they’re getting bored with the dish- the next step will be to update the dish!” And Katib, the magic telescope chimed in, “I can help with that too, to

make sure the updated recipe is always as good as it can be!” And Flo replied, “Oh thank you both so much! Magic telescope, I think your improved versions are even better than my originals!”



Captain Kube came to Flo and said, “Oh Flo, this restaurant will be such a wonderful addition to my ship- but how will a customer from outside dine here?” Just then a sailboat pulled up alongside Captain Kube’s ship and bellowed, “I can help with that.” Captain Kube

chuckled, “I thought you might be able to Istio, my old friend”. Istio continued, “Nice to meet you Flo, my name is Istio- and I help passengers on Captain Kube’s ship communicate with the outside world”.



## What is Istio?

- An open source service mesh that helps organizations run distributed, microservices-based apps anywhere
- Why use Istio? Istio enables organizations to secure, connect, and monitor microservices, so they can modernize their enterprise apps more swiftly and securely
- Istio creates a gateway for the outside world to interact with Kubernetes Deployments/ services/pods



“Oh wonderful!” meowed Flo, “I think we’re finally ready!” And with that, “Kube and Flo’s Place” was open for business, and Flo was making more friends than

she ever dreamed of having before. And with her new kitchen and Katib’s help, it was easier than ever for her to experiment and create new recipes.

